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## CURRENT INDUSTRIAL REPORTS

Manufacturers' Shipments,  
Inventories, and Orders

February 1970

U.S. DEPARTMENT OF COMMERCE / Bureau of the Census



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New orders for manufactured products in February increased \$900 million to \$54.7 billion, after seasonal adjustment, the Bureau of the Census, U.S. Department of Commerce, announced today. Shipments increased \$400 million to \$55.5 billion. The backlog of unfilled orders at \$87.7 billion declined \$800 million from January as shipments during February exceeded new orders received. The increases in shipments and new orders were centered chiefly in the civilian aircraft segment of the transportation industry. Exclusive of transportation, new orders at \$47.5 billion remained virtually unchanged from January, whereas shipments at \$48.1 billion declined \$200 million. Manufacturers' inventories continued to rise with an increase of \$600 million to a total of \$96.7 billion from \$96.1 billion at the end of January. The inventories to shipments ratio at 1.74 was unchanged from January.

For the 3 months ending in February, the average monthly change in new orders was a decrease of 0.9 percent compared with an increase of 0.9 percent for the 3 months ending in November and an increase of 0.4 percent for the 3 months ending in August.

## NEW ORDERS

New orders for durable goods increased \$500 million or 1.8 percent from the January total of \$28.9 billion. In the transportation industry, new orders increased \$800 million, of which \$600 million was in the aerospace segment. New orders for primary metals declined \$300 million while the machinery industries increased \$200 million.

Among the supplementary series, household durables remained unchanged at \$1.9 billion, while machinery and equipment (producers' capital goods) increased \$200 million to \$6.6 billion. New orders for defense products at 1.8 billion were virtually unchanged from January. (SEE CHART 1)

Chart 1 - Manufacturers' New Orders (Seasonally Adjusted)

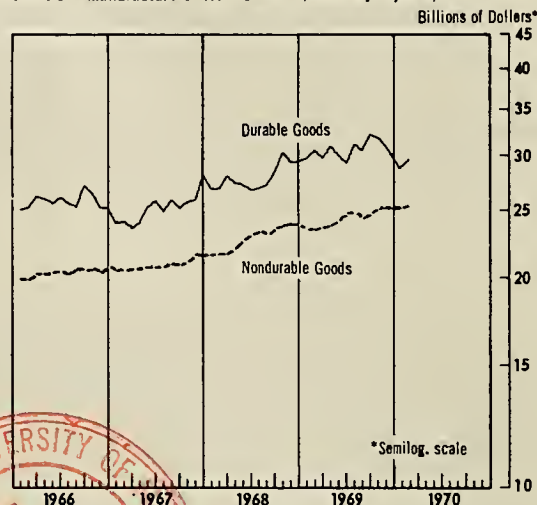
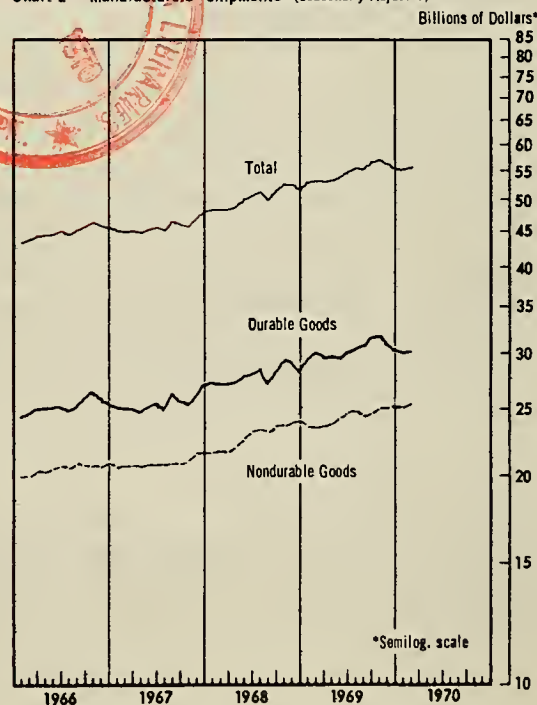


Chart 2 - Manufacturers' Shipments (Seasonally Adjusted)



## SHIPMENTS

Manufacturers' shipments of durable goods increased \$200 million to \$30.2 billion from \$30.0 billion in January. Shipments of transportation equipment increased \$600 million to \$7.4 billion while primary metals declined \$300 million to \$4.8 billion. Shipments of nondurable goods increased \$200 million to \$25.3 billion from \$25.1 billion in January. (SEE CHART 2)

## UNFILLED ORDERS

Unfilled orders of durable goods at \$84.7 billion were \$800 million or 0.9 percent below the backlog at the end of January. Declines in backlog were general. The backlog in primary metals declined \$400 million to \$7.0 billion at the end of February and the backlog of transportation equipment declined \$200 million to \$31.0 billion from \$31.2 billion at the end of January. (SEE CHART 3)

## INVENTORIES

Inventories in the durable goods industries increased \$300 million to \$64.1 billion from \$63.8 billion in January and those in the nondurable goods industries increased \$400 million to \$32.6 billion at the end of February. The largest dollar gain in durables occurred in the nonelectrical machinery industry. The largest dollar gain in the nondurable goods industries was in foods. Increases in finished goods and materials and supplies inventories were partially offset by a decline in work-in-process inventories. (SEE CHART 4)

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industry categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for March is scheduled for release on April 20 and the full report is scheduled for release on April 30.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Chart 3 - Manufacturers' Unfilled Orders (Seasonally Adjusted)

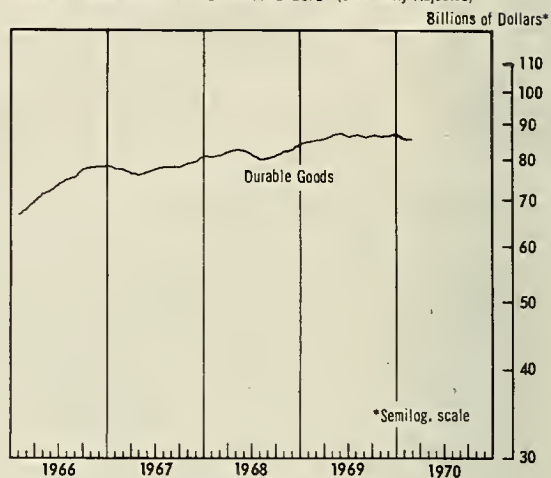


Chart 4 - Total Inventory (Seasonally Adjusted)

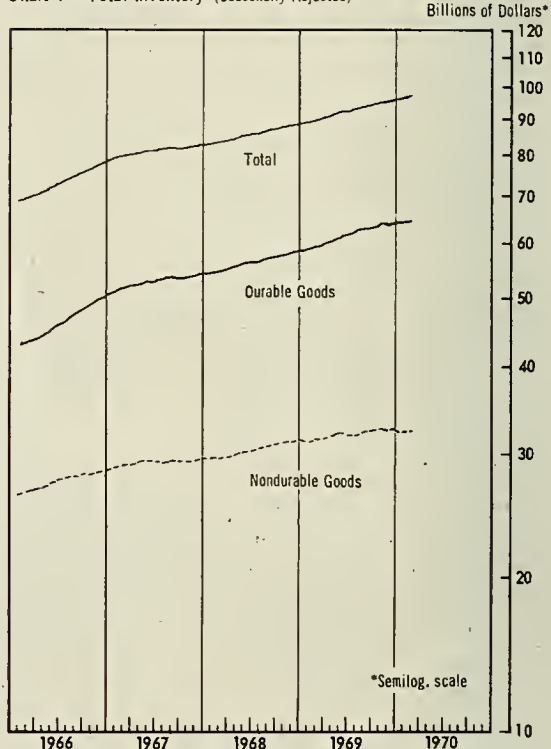




Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment		
	Feb. 1970 <sup>P</sup>	Jan. 1970 <sup>r</sup>	Dec. 1969	Feb. 1970 <sup>P</sup>	Jan. 1970 <sup>r</sup>	Feb. 1969	Feb. 1970 <sup>P</sup>	Jan. 1970 <sup>r</sup>	Dec. 1969	Feb. 1970 <sup>P</sup>	Jan. 1970 <sup>r</sup>	Feb. 1969
	Shipments						Total inventories					
All manufacturing industries:												
Total.....	55,512	55,099	55,277	56,186	51,555	53,933	96,703	96,062	95,905	97,284	96,271	90,158
Total, excluding transportation....	48,071	48,274	47,684	48,473	44,887	46,192	81,163	80,426	80,344	81,644	80,589	75,868
Durable goods industries, total.....	30,245	30,042	30,201	30,633	27,886	30,287	64,104	63,835	63,550	64,379	63,702	58,568
Stone, clay, and glass products.....	1,522	1,475	1,485	1,358	1,250	1,295	2,540	2,506	2,483	2,591	2,511	2,420
Primary metals, total.....	4,809	5,138	4,945	4,971	4,931	4,741	8,159	8,104	8,052	8,215	8,214	7,606
Blast furnaces, steel mills.....	2,146	2,474	2,354	2,204	2,365	2,153	4,306	4,260	4,312	4,345	4,367	4,079
All other primary metals.....	2,663	2,664	2,591	2,767	2,566	2,588	3,853	3,844	3,740	3,870	3,847	3,527
Fabricated metal products, total.....	3,106	3,310	3,259	3,088	2,969	3,009	6,667	6,660	6,613	6,660	6,564	6,126
Metal cans, barrels, and drums.....	288	332	303	261	266	262	791	767	665	777	720	630
Machinery, except electrical, total.....	5,612	5,536	5,228	5,776	5,017	5,513	13,402	13,241	13,180	13,538	13,271	11,866
Engines and turbines.....	462	474	460	447	362	416	974	950	983	992	953	889
Farm machinery and equipment.....	472	488	453	521	455	498	958	948	944	1,011	982	992
Construction, mining, and material handling equipment.....	735	772	651	745	690	694	2,252	2,238	2,245	2,302	2,268	2,050
Metalworking machinery.....	345	353	312	360	316	344	1,139	1,129	1,123	1,138	1,124	1,031
General industrial machinery.....	568	556	507	583	501	489	1,139	1,115	1,102	1,141	1,108	987
Electrical machinery, total.....	3,671	3,574	3,609	3,717	3,319	3,728	9,486	9,407	9,346	9,421	9,254	8,539
Electrical transmission and distribution equipment and industrial apparatus.....	706	661	659	713	596	718	1,986	1,935	1,943	1,995	1,938	1,780
Household appliances, including radio and TV.....	664	666	671	664	604	761	2,135	2,118	2,084	2,100	2,051	1,925
Communication equipment.....	1,086	1,072	1,092	1,102	986	1,057	2,835	2,807	2,774	2,820	2,757	2,502
Transportation equipment, total.....	7,441	6,825	7,593	7,713	6,668	7,741	15,540	15,636	15,561	15,640	15,682	14,290
Motor vehicles and parts.....	3,776	3,608	3,735	3,938	3,666	4,393	4,168	4,231	4,156	4,259	4,307	4,319
Aircraft, missiles, and parts.....	3,029	2,610	3,133	3,132	2,444	2,729	9,450	9,484	9,547	9,409	9,451	8,276
Instruments and related products.....	1,177	1,171	1,142	1,144	1,035	1,056	2,528	2,484	2,476	2,506	2,432	2,255
All other durable goods industries.....	2,907	3,013	2,940	2,866	2,697	3,204	5,782	5,797	5,839	5,808	5,774	5,466
Nondurable goods industries, total.....	25,267	25,057	25,076	25,553	23,669	23,646	32,599	32,227	32,355	32,905	32,569	31,590
Food and kindred products, total.....	8,505	8,452	8,624	8,538	8,088	7,644	7,467	7,200	7,230	7,507	7,414	7,291
Meat products.....	1,749	1,761	1,772	1,733	1,752	1,649	848	793	804	887	834	722
Tobacco products.....	422	456	438	405	414	399	2,143	2,165	2,200	2,270	2,302	2,333
Textile mill products.....	1,740	1,779	1,745	1,759	1,626	1,752	3,469	3,455	3,501	3,513	3,448	3,579
Paper and allied products, total.....	2,373	2,351	2,283	2,396	2,239	2,219	2,660	2,661	2,632	2,649	2,625	2,411
Pulp, paper, etc.....	1,032	1,018	1,001	1,048	978	933	1,041	1,027	1,017	1,050	1,019	957
Chemicals and allied products, total.....	4,252	3,986	4,110	4,269	3,797	3,995	6,587	6,551	6,634	6,720	6,631	6,220
Industrial chemicals, except pigments....	1,456	1,412	1,432	1,484	1,327	1,347	2,171	2,171	2,286	2,228	2,214	2,102
Petroleum and coal products.....	2,149	2,206	2,140	2,156	2,167	1,949	2,302	2,320	2,274	2,271	2,297	2,048
Rubber and plastics products, n.e.c.....	1,499	1,474	1,365	1,521	1,390	1,344	1,932	1,914	1,888	1,960	1,922	1,856
All other nondurable goods industries.....	4,327	4,353	4,371	4,509	3,948	4,344	6,039	5,961	5,996	6,015	5,930	5,852
	New orders						Unfilled orders					
All manufacturing industries:												
Total.....	54,749	53,868	55,362	55,775	51,285	54,850	87,727	88,488	89,714	87,735	88,146	88,041
Total, excluding transportation....	47,515	47,454	48,367	48,561	44,986	47,039	56,741	57,296	58,109	57,028	56,942	54,079
Durable goods industries, total.....	29,433	28,909	30,295	30,133	27,695	31,125	84,729	85,539	86,668	84,758	85,258	84,988
Primary metals, total.....	4,455	4,787	4,760	4,945	4,920	5,139	7,022	7,375	7,726	7,462	7,491	6,994
Blast furnaces, steel mills.....	1,859	2,079	2,007	2,168	2,233	2,375	3,239	3,526	3,921	3,596	3,632	3,451
Fabricated metal products.....	2,956	3,024	3,384	3,060	2,977	2,932	10,418	10,569	10,854	10,426	10,454	9,722
Machinery, except electrical, total.....	5,540	5,390	5,548	5,800	5,083	5,875	17,025	17,099	17,243	17,082	17,060	15,245
Engines and turbines.....	525	540	619	539	433	430	4,947	4,886	4,820	4,943	4,851	4,113
Construction, mining, and material handling equipment.....	746	751	677	789	722	897	2,193	2,183	2,204	2,202	2,159	1,917
Metalworking machinery.....	261	310	264	281	291	358	1,671	1,754	1,797	1,676	1,754	1,761
General industrial machinery.....	581	527	576	614	501	540	1,673	1,660	1,689	1,674	1,643	1,532
Electrical machinery, total.....	3,737	3,667	4,110	3,763	3,387	3,788	13,672	13,606	13,512	13,518	13,471	13,097
Electrical transmission and distribution equipment and industrial apparatus.....	710	717	826	758	656	741	3,569	3,564	3,508	3,582	3,537	3,272
Household appliances, including radio and TV.....	641	652	694	633	629	823	557	581	593	546	576	636
Communication equipment.....	1,173	1,068	1,402	1,098	971	963	5,647	5,560	5,564	5,534	5,538	5,399
Transportation equipment, total.....	7,234	6,414	6,995	7,214	6,299	7,811	30,986	31,192	31,605	30,707	31,204	33,962
Aircraft, missiles, and parts.....	2,833	2,201	2,728	2,718	2,082	2,872	23,606	23,802	24,212	23,388	23,801	27,096
All other durable goods industries.....	5,511	5,627	5,498	5,351	5,029	5,580	5,606	5,698	5,728	5,563	5,578	5,968
Nondurable goods industries, total.....	25,316	24,959	25,067	25,642	23,590	23,725	2,998	2,949	3,046	2,977	2,888	3,053
Industries with unfilled orders.....	6,945	6,799	6,804	7,047	6,373	6,604	2,998	2,949	3,046	2,977	2,888	3,053
Industries without unfilled orders.....	18,371	18,160	18,263	18,595	17,217	17,121	-	-	-	-	-	-

- Represents zero. <sup>P</sup>Preliminary. <sup>r</sup>Revised.<sup>1</sup>Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment		
	Feb. 1970 <sup>p</sup>	Jan. 1970 <sup>r</sup>	Dec. 1969	Feb. 1970 <sup>p</sup>	Jan. 1970 <sup>r</sup>	Feb. 1969	Feb. 1970 <sup>p</sup>	Jan. 1970 <sup>r</sup>	Dec. 1969	Feb. 1970 <sup>p</sup>	Jan. 1970 <sup>r</sup>	Feb. 1969
	Shipments						Total inventories					
All manufacturing industries, total..	55,512	55,099	55,277	56,186	51,555	53,933	96,703	96,062	95,905	97,284	96,271	90,158
Durable goods industries, total.....	30,245	30,042	30,201	30,633	27,886	30,287	64,104	63,835	63,550	64,379	63,702	58,568
Nondurable goods industries, total.....	25,267	25,057	25,076	25,553	23,669	23,646	32,599	32,227	32,355	32,905	32,569	31,590
Industry groups arranged by market categories:												
Home goods and apparel.....	4,394	4,484	4,505	4,592	3,981	4,911	9,936	9,903	9,922	9,895	9,776	9,456
Consumer staples.....	10,970	10,854	11,035	10,942	10,321	9,812	12,379	12,087	12,084	12,509	12,386	11,944
Equipment and defense products, except automotive.....	9,527	9,073	9,146	9,708	8,225	8,993	26,016	25,884	25,865	26,099	25,794	22,839
Automotive equipment.....	4,344	4,185	4,332	4,491	4,202	4,930	5,304	5,356	5,277	5,458	5,464	5,386
Construction materials, supplies, and intermediate products.....	4,384	4,537	4,537	4,051	3,851	4,293	8,006	7,990	8,001	8,086	7,961	7,615
Other materials and supplies and intermediate products.....	21,893	21,966	21,722	22,402	20,975	20,994	35,062	34,842	34,756	35,237	34,890	32,918
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	1,937	1,937	1,984	1,955	1,763	2,182	5,162	5,156	5,092	5,137	5,073	4,700
Machinery and equipment industries.....	6,552	6,380	6,179	6,670	5,782	6,376	16,611	16,425	16,305	16,698	16,391	14,573
Defense products industries (old series).	4,391	3,970	4,518	4,513	3,695	4,118	13,086	13,101	13,204	13,043	13,014	11,642
Defense products (new series)*.....	1,946	1,798	2,284	2,000	1,672	1,901	7,310	7,472	7,472	7,297	7,422	7,311
	New orders						Unfilled orders					
All manufacturing industries, total..	54,749	53,868	55,362	55,775	51,285	54,850	87,727	88,488	89,714	87,735	88,146	88,041
Durable goods industries, total.....	29,433	28,909	30,295	30,133	27,695	31,125	84,729	85,539	86,668	84,758	85,258	84,988
Nondurable goods industries, total.....	25,316	24,959	25,067	25,642	23,590	23,725	2,998	2,949	3,046	2,977	2,888	3,053
Industry groups arranged by market categories:												
Home goods and apparel.....	4,392	4,443	4,528	4,579	3,994	4,951	1,968	1,974	2,017	1,937	1,948	2,206
Consumer staples.....	10,966	10,848	11,028	10,942	10,317	9,821						
Equipment and defense products, except automotive.....	9,560	8,880	9,570	9,449	8,166	9,358	48,183	48,261	48,515	47,727	48,099	47,836
Automotive equipment.....	4,233	4,122	4,297	4,374	4,167	4,906						
Construction materials, supplies, and intermediate products.....	4,247	4,243	4,490	4,090	3,902	4,337	10,456	10,592	10,886	10,468	10,430	10,055
Other materials and supplies and intermediate products.....	21,351	21,332	21,449	22,341	20,739	21,477	27,120	27,661	28,296	27,603	27,669	27,944
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	1,932	1,899	2,001	1,946	1,786	2,248	1,602	1,607	1,642	1,579	1,586	1,806
Machinery and equipment industries.....	6,564	6,414	6,490	6,770	5,993	6,714	25,169	25,160	25,126	25,103	25,005	22,433
Defense products industries (old series).	4,273	3,549	4,400	4,082	3,316	4,158	29,734	29,852	30,273	29,395	29,824	33,176
Defense products (new series)*.....	1,848	1,812	2,108	1,709	1,723	2,157	20,335	20,433	20,419	20,122	20,413	22,016

\*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historical data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. <sup>p</sup>Preliminary. <sup>r</sup>Revised. <sup>1</sup>Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. <sup>2</sup>The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Machinery and equipment industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), ship building and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the ship building industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and ship building. Thus, it differs for the old series in that it includes defense activity in ship building and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.



Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1964-1969	
	Feb.- Jan. 1970	Dec. 1969 Jan. 1970	Nov. Dec. 1969	3 months			12 months	Average rise	Average decline
				Nov. 1969 Feb. 1970	Aug. 1969 Nov. 1969	May 1969 Aug. 1969	Feb. 1969 Feb. 1970		
Shipments:									
All manufacturing industries.....	+0.7	-0.3	-1.3	-0.3	+0.5	+0.9	+0.3	+1.4	-1.1
Durable goods industries, total.....	+0.7	-0.5	-2.4	-0.7	+0.1	+1.5	+0.1	+1.9	-2.1
Nondurable goods industries, total.....	+0.8	-0.1	+0.1	+0.3	+0.9	+0.3	+0.7	+1.0	-0.5
Total inventories:									
All manufacturing industries.....	+0.7	+0.2	+0.5	+0.5	+0.6	+0.6	+0.6	+0.7	-0.1
New orders:									
All manufacturing industries.....	+1.6	-2.7	-1.6	-0.9	+0.9	+0.4	+0.2	+1.8	-1.5
Durable goods industries, total.....	+1.8	-4.6	-2.9	-1.9	+0.8	+0.6	-0.3	+3.1	-2.4
Nondurable goods industries, total.....	+1.4	-0.4	+0.1	+0.4	+1.0	+0.3	+0.7	+1.1	-0.6
Unfilled orders:									
Durable goods industries, total.....	-0.9	-1.3	+0.2	-0.7	+0.2	-0.3	0.0	+1.1	-0.6

Table 4.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio <sup>1</sup> (months' backlog)			
	Feb. 1970 <sup>P</sup>	Jan. 1970 <sup>T</sup>	Dec. 1969	Feb. 1969	Feb. 1970 <sup>P</sup>	Jan. 1970 <sup>T</sup>	Dec. 1969	Feb. 1969
All manufacturing industries, total.....	1.74	1.74	1.73	1.68	2.55	2.58	2.62	2.65
Durable goods industries, total.....	2.12	2.12	2.10	1.95	3.08	3.13	3.16	3.18
Stone, clay, and glass products.....	1.67	1.70	1.67	1.63	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.70	1.58	1.63	1.65	1.46	1.44	1.56	1.43
Fabricated metals.....	2.15	2.01	2.03	2.02	3.70	3.55	3.33	3.54
Machinery, except electrical.....	2.39	2.39	2.52	2.19	3.03	3.09	3.30	2.84
Electrical machinery.....	2.58	2.63	2.59	2.33	3.72	3.81	3.74	3.60
Transportation equipment.....	2.09	2.29	2.05	1.90	5.93	6.60	4.16	7.15
Instruments and related products.....	2.15	2.12	2.17	2.10	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.29	1.29	1.29	1.34	0.43	0.43	0.45	0.47
Food and kindred products.....	0.88	0.85	0.84	0.95	(X)	(X)	(X)	(X)
Tobacco products.....	5.08	4.75	5.02	5.31	(X)	(X)	(X)	(X)
Textile mill products.....	1.99	1.94	2.01	2.03	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.12	1.13	1.15	1.10	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.55	1.64	1.61	1.53	(X)	(X)	(X)	(X)
Petroleum and coal products.....	1.07	1.05	1.06	1.07	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.29	1.30	1.38	1.38	(X)	(X)	(X)	(X)

(NA) Not available. <sup>P</sup>Preliminary. <sup>T</sup>Revised. (X) Not applicable.<sup>1</sup>Excludes the following industries with no unfilled orders: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

Table 5.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Feb. 1970 <sup>p</sup>	Jan. 1970 <sup>r</sup>	Dec. 1969	Feb. 1970 <sup>p</sup>	Jan. 1970 <sup>r</sup>	Feb. 1969	Feb. 1970 <sup>p</sup>	Jan. 1970 <sup>r</sup>	Dec. 1969	Feb. 1970 <sup>p</sup>	Jan. 1970 <sup>r</sup>	Feb. 1969
	Total						Materials and supplies					
All manufacturing industries, total..	96,703	96,062	95,905	97,284	96,271	90,158	29,580	29,227	29,364	29,649	29,388	28,281
Durable goods industries, total.....	64,104	63,835	63,550	64,379	63,702	58,568	17,716	17,598	17,572	17,610	17,551	16,532
Stone, clay, and glass products.....	2,540	2,506	2,483	2,591	2,511	2,420	819	804	796	816	801	750
Primary metals.....	8,159	8,104	8,052	8,215	8,214	7,606	2,937	2,888	2,824	2,872	2,922	2,705
Machinery (electrical and nonelectrical).	22,888	22,648	22,526	22,959	22,525	20,405	5,569	5,484	5,556	5,508	5,430	4,885
Transportation equipment.....	15,540	15,636	15,561	15,640	15,682	14,290	3,174	3,244	3,293	3,233	3,276	3,364
All other durable goods industries.....	14,977	14,941	14,928	14,974	14,770	13,847	5,217	5,178	5,103	5,181	5,122	4,828
Nondurable goods industries, total.....	32,599	32,227	32,355	32,905	32,569	31,590	11,864	11,629	11,792	12,039	11,837	11,749
Chemicals and allied products.....	6,587	6,551	6,634	6,720	6,631	6,220	2,227	2,235	2,281	2,233	2,242	2,101
Petroleum and coal products.....	2,302	2,320	2,274	2,271	2,297	2,048	540	535	503	523	518	459
Rubber and plastics products, n.e.c.....	1,932	1,914	1,888	1,960	1,922	1,856	589	592	600	580	588	566
All other nondurable goods industries.....	21,778	21,442	21,559	21,954	21,719	21,466	8,508	8,267	8,408	8,703	8,489	8,623
	Work in process						Finished goods					
All manufacturing industries, total..	34,889	35,090	34,896	35,007	34,935	32,093	32,234	31,745	31,645	32,628	31,948	29,784
Durable goods industries, total.....	29,942	29,987	29,796	30,071	29,884	27,090	16,446	16,250	16,182	16,698	16,267	14,946
Stone, clay, and glass products.....	386	387	407	398	381	396	1,335	1,315	1,280	1,377	1,329	1,274
Primary metals.....	2,774	2,818	2,780	2,833	2,858	2,589	2,448	2,398	2,448	2,510	2,434	2,312
Machinery (electrical and nonelectrical).	10,815	10,805	10,702	10,885	10,786	9,839	6,504	6,359	6,268	6,566	6,309	5,681
Transportation equipment.....	10,811	10,845	10,683	10,819	10,821	9,445	1,555	1,547	1,585	1,588	1,585	1,481
All other durable goods industries.....	5,156	5,132	5,224	5,136	5,038	4,821	4,604	4,631	4,601	4,657	4,610	4,198
Nondurable goods industries, total.....	4,947	5,103	5,100	4,936	5,051	5,003	15,788	15,495	15,463	15,930	15,681	14,838
Chemicals and allied products.....	889	962	968	896	961	961	3,471	3,354	3,385	3,591	3,428	3,158
Petroleum and coal products.....	534	534	541	524	521	464	1,228	1,251	1,230	1,224	1,258	1,125
Rubber and plastics products, n.e.c.....	337	319	317	337	318	324	1,006	1,003	971	1,043	1,016	966
All other nondurable goods industries.....	3,187	3,288	3,274	3,179	3,251	3,254	10,083	9,887	9,877	10,072	9,979	9,589

<sup>p</sup> Preliminary.<sup>r</sup> Revised.

## Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

### DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

### EXPLANATION OF TERMS

**Value of Shipments**--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this





definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

**Inventories--**End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

#### **New Orders Received and Unfilled Orders--**

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.